

**APPLICATION FOR UNITED STATES LETTERS PATENT**

**for**

**CONSUMER FEEDBACK IN CONTENT MANAGEMENT SYSTEMS**

**by**

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**CONSUMER FEEDBACK IN CONTENT MANAGEMENT SYSTEMS**

**CROSS-REFERENCE TO RELATED APPLICATION**

[01] This application for patent is a continuation-in-part of U.S. Utility Patent Application Serial No. 09/415,560, entitled "A Method and System for Operating a Content Management System," filed October 8, 1999, and incorporated herein by reference.

**FIELD OF THE INVENTION**

[02] The present invention relates to electronic content management systems. In particular, the present invention relates to a system and method for managing consumer feedback in such electronic content management systems.

**BACKGROUND OF THE INVENTION**

[03] Electronic content management systems are used to manage the production and publication of, for example, newspapers, magazines, on-line journals, and other types of publications. The content in these publications may include, for example, news stories, political commentaries, product reviews, and similar items of interests. The electronic content management system allows the content to be received, edited, reviewed, and approved by appropriate personnel prior to dissemination. The content may then be released for publication, either on-line or via a more traditional medium. An example of such an electronic content management system may be found in U.S. Utility Patent Application Serial No. 09/415,560, referenced above.

[04] In traditional electronic content management systems, the consumer feedback component (to the extent there is one) is isolated and separate from the production and publishing components of the system. As a result, there is often a disconnect between what the consumer would like to see or cares about and the content that is published. For example, consumer feedback regarding the articles in the "Sports" section of an on-line publication may never be seen (or at least not in a timely manner) by the managing editor of that section. The disconnect is usually not critical for non-information currency based industries because consumer feedback is not integral to the day-to-day sales or

distribution of the product. Instead, it simply serves to shape the long term, future development and marketing strategies for the product. For industries that are based on information currency, however, the valuable life of the content, and hence the time it can be used to capture the consumer's attention, is very brief. Consumer feedback, therefore, is an integral part of the daily sales and distribution of the content in these industries.

[05] Moreover, traditional electronic content management systems are designed under the premise that consumer response may be gauged using standard mass audience analysis techniques. These techniques rely on anonymous surveys and focus groups composed of randomly selected consumers who are statistically representative of the whole. While such techniques are generally applicable for homogeneous or relatively homogeneous audiences, they do not account for the extraordinary impact that certain statistical outliers often have on consumer consumption. For example, it has been found that consumption patterns in information currency based industries are often driven by a very small group (5-10%) of consumers who consume well over 50% of the product. These consumers are often the ones who take the time and effort to provide feedback. Standard mass audience analysis techniques, however, tend to dilute the impact of these consumers by averaging their consumption pattern with the consumption pattern of the rest (90-95%) of the consumers.

[06] Accordingly, what is needed is an electronic content management system that is capable of closing the disconnect between consumer feedback and the product that is published. In addition, what is needed is an electronic content management system that is capable of tracking the consumption patterns of the consumers on an individual basis.

### **SUMMARY OF THE INVENTION**

[07] The present invention is directed to a method and system for managing consumer feedback in an electronic content management system. The method and system of the invention includes a mechanism for consumers to provide feedback regarding the content that is published. The feedback is routed to the appropriate personnel responsible for publishing the content. In this way, the disconnect between what the consumer would like to see or cares about and the content that is published is closed. In addition, the consumer feedback triggers monitoring of the consumer's content accessing activity,

which allows the consumer's consumption pattern to be tracked on an individual basis. This information may then be used to better define the content that gets published in order to match the consumer's interests.

[08] In general, in one aspect, the invention is directed to a method of managing consumer feedback in an electronic content management system. The method comprises the steps of receiving feedback from a consumer regarding published content, storing the feedback, and sending a response message to the consumer in response to the feedback. The method further comprises determining whether escalation of the feedback is needed, and if so, routing the feedback to a personnel responsible for the published content in order to close a loop between the personnel responsible for the published content and the consumer.

[09] In general, in another aspect, the invention is directed to a user interface for managing consumer feedback in an electronic content management system. The user interface comprises a feedback form including a plurality of fields for capturing personal information about a consumer along with a feedback provided by the consumer regarding published content, and a feedback processing form including a plurality of fields for specifying a feedback type of the feedback, generating a response message to the feedback, and identifying a personnel responsible for the published content. The feedback processing form is capable of causing the response message to be sent to the consumer and the feedback to be forwarded to the personnel responsible for the published content.

[10] In general, in yet another aspect, the invention is directed to a method of managing consumer feedback in an electronic content management system. The method comprises the steps of receiving feedback from a consumer regarding published content, parsing the consumer personal information from the feedback, and storing the consumer personal information and the feedback in the electronic content management system. The method further comprises monitoring all content accessing activity of the consumer using the consumer personal information in order to track a consumption pattern of the consumer, sending a response message to the consumer in response to the feedback, and determining whether escalation of the feedback is needed. If escalation is needed, the

feedback is routed to a personnel responsible for the published content in order to close a loop between the personnel responsible for the published content and the consumer.

[11] The above summary of the present invention is not intended to represent each embodiment, or every aspect, of the present invention.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[12] The foregoing and other advantages of the invention will become apparent upon reading the following detailed description and upon reference to the drawings, wherein:

[13] Figure 1 illustrates an exemplary consumer feedback procedure according to embodiments of the invention;

[14] Figure 2 illustrates an exemplary escalation procedure according to embodiments of the invention;

[15] Figure 3 illustrates an exemplary consumer response procedure according to embodiments of the invention;

[16] Figure 4 illustrates an exemplary consumer feedback form according to embodiments of the invention;

[17] Figure 5 illustrates an exemplary receipt confirmation form according to embodiments of the invention;

[18] Figure 6 illustrates an exemplary open tickets form according to embodiments of the invention;

[19] Figure 7 illustrates an exemplary open cases form according to embodiments of the invention;

[20] Figures 8A-8E illustrate an exemplary ticket processing form for handling open tickets according to embodiments of the invention;

[21] Figure 9 illustrates an exemplary email that may be sent in response to consumer feedback according to embodiments of the invention;

[22] Figure 10 illustrates an exemplary processing form for handling subsequent consumer feedback according to embodiments of the invention;

[23] Figure 11 illustrates an exemplary consumer feedback form for telephone based consumer feedback according to embodiments of the invention; and

[24] Figures 12A-12B illustrate exemplary ticket search forms according to embodiments of the invention.

[25] While the invention is susceptible to various modifications and alternative forms, specific embodiments have been shown by way of example in the drawings and will be described in detail herein. It should be understood, however, that the invention is not intended to be limited to the particular forms disclosed. Rather, the invention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the invention as defined by the appended claims.

### **DESCRIPTION OF ILLUSTRATIVE EMBODIMENTS**

[26] Following is a detailed description of illustrative embodiments of the invention with reference to the drawings wherein the same reference labels are used for the same or similar elements.

[27] As mentioned above, embodiments of the invention provide a centralized consumer feedback procedure in an electronic content management system. The consumer feedback procedure of the invention is designed to receive, store, and route all consumer feedback to the appropriate personnel as needed for resolution. Such a formalized procedure closes the disconnect between what the consumer would like to see or cares about and the content that is published. The procedure also ensures that the consumption patterns of all consumers, or at least the ones who provide feedback, are tracked and analyzed on a consumer-by-consumer basis so that the impact of statistical outliers is not diluted.

[28] For purposes of this description, it will be assumed that the content managed by the electronic content management system (as described in U.S. Application Serial No. 09/415,560) is published on one or more websites (e.g., DallasNews.com, DentonRC.com, etc.) which the consumer can access using any commercially available web browser. Further, the consumer is typically a subscriber to the content or has otherwise created an account with the content providers that requires the consumer to provide at least his first and last name and email address. The invention is equally applicable, however, to content that is published via more traditional mediums as well.

[29] Referring now to Figure 1, a centralized consumer feedback procedure 100 according to embodiments of the invention is shown. The consumer feedback procedure 100 includes a feedback intake step for receiving the consumer feedback. In some embodiments, the feedback intake step includes providing an on-line form at step 102a that the consumer can complete to provide feedback. The on-line form may be any suitable form such as a webform that the consumer can fill in. Preferably, each webpage or at least each website managed by the electronic content management includes such an on-line form. The feedback intake step may also include providing a form at step 102b that a customer service representative can use to field consumer feedback provided via telephone. In most embodiments, the forms provided are similar or identical to each other in order to standardize the information in the forms. Other feedback mechanisms may also be used without departing from the scope of the invention, such as a mail-in or fax-in form that the consumer may fill out and send in.

[30] Once a feedback form is received from the consumer, it is subsequently provided to a help center at step 104. The help center, which may be a manual and/or a computerized help center, parses the data from all received forms according to one or more predefined fields, such as the consumer name, email address, type of feedback, and the like. The parsed data is thereafter extracted from the forms and provided at step 106 to a database of the electronic content management system, where the data is stored. The database, which may be any suitable database such as an Oracle® database, also stores the website information for the website where the form was originated.

[31] A ticket is generated at step 108 for each consumer feedback received based on the data stored in the database. Generation of the ticket triggers logging and monitoring by the electronic content management system of all subsequent content accessing activity by the consumer who provided the feedback using an identifier such as the consumer's email address. This allows the consumption pattern of the consumer to be tracked and analyzed on a consumer-by-consumer basis and thereby, prevents dilution of the consumption pattern of important statistical outliers. The ticket itself also includes a unique tracking number which allows the issue raised by the consumer in the feedback to be tracked and analyzed.

[32] In some embodiments, the ticket is generated in a webform that may then be sent as an alert to a customer service representative. An automatically generated confirmation message is also emailed to the consumer at step 110 to let the consumer know that his feedback has been received and will be processed. At step 112, the customer service representative attempts to address any issues raised by the consumer in the feedback by sending the consumer an appropriate email response. The response typically includes a request that the consumer send a reply back to the customer service representative if the issue raised has been addressed to consumer's satisfaction.

[33] The customer service representative thereafter makes a determination at step 114 whether to close the ticket or to keep the ticket open. If the customer service representative feels that the issue is of a nature such that no further action is needed, then the ticket is closed at step 116. Issues that can be resolved in this manner include, for example, simple technical questions or questions that have a definite answer. On the other hand, if the customer service representative feels that the issue merits further action, then the ticket is kept opened and escalated at step 118 to the appropriate personnel for resolution. Issues that need to be escalated include, for example, questions relating to the content of a website.

[34] Figure 2 illustrates an exemplary escalation procedure 118 according to embodiments of the invention. The escalation procedure 118 begins at step 200, where the customer service representative has decided that escalation is warranted. The customer service representative then determines at step 202, based on the nature of the issue raised, which corporate entity or business unit is best suited to see and/or respond to the feedback. For example, the customer service representative may escalate the ticket to the originating website at step 204. The ticket then is routed to the appropriate department or group within the website based on the type or category of feedback specified in the feedback form. For example, if the ticket contains feedback regarding articles in the "Sports" section, then it will be routed to the managing editor of that section. Such an arrangement closes the loop between what the consumer would like to see or cares about and the content that gets published.

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[35] The customer service representative may also escalate the ticket to a corporate help desk (e.g., BeloInteractive.com) at step 206 for issues that concern multiple corporate entities.

[36] It is also possible to send the ticket to some other corporate entity besides the examples mentioned above, or to several corporate entities simultaneously instead of just one. Once the issue has been addressed by the corporate entity, a communication is sent to the customer service representative summarizing the nature of the resolution at step 208, and the escalation procedure is concluded. The customer service representative thereafter closes the ticket at step 116 (see Figure 1).

[37] In some embodiments, information regarding the escalation, the resulting resolution, as well as the ticket closure can all be optionally logged to the database, as shown by the dashed lines in Figures 1 and 2.

[38] In some embodiments, the consumer feedback procedure 100 of the invention also includes an administrative tool for assigning tickets that have been opened to customer service representatives. A workflow 210 for such an administrative tool is shown in Figure 2. As can be seen, assignment of the of the tickets begins at step 212, where the opened tickets are retrieved from the database of the electronic content management system. An assignment form allows a customer service supervisor to view the tickets and to determine the best customer service representative to handle a particular ticket at step 214. The tickets are then assigned to the appropriate customer service representatives at steps 216a-c. If any customer service representative determines that a ticket warrants escalation, then he may escalate the ticket using the escalation procedure 118 described above.

[39] The workflow 210 of the administrative tool also includes a search option at step 218, which allows the customer service supervisor or any customer service representative to search the database for open or closed tickets based on one or more search criteria. The results of the search are presented at step 220. If any of the tickets returned by the search requires escalation, then that ticket may be escalated using the escalation procedure 118.

[40] Referring now to Figure 3, a procedure 300 for processing a subsequent correspondence received from the consumer is shown. As mentioned above, the

customer service representative's response to the consumer at step 112 (see Figure 1) asks the consumer to reply with a follow-up message if the issue raised has been resolved to the consumer's satisfaction. The consumer may send an email or he may also use the feedback form provided at steps 102a and 102b to follow-up on the issue. In either case, the procedure 300 begins by receiving the follow-up correspondence at step 302. The correspondence is stored in the database at step 304, and a webform alert is sent to the customer service representative at step 306. The webform alert preferably includes some type of indicator that the correspondence is a follow-up to feedback that the consumer previously provided, such as a "Re:" in the subject line. Upon receiving the webform alert with the follow-up indicator, the customer service representative reviews the consumer's account to determine what further action, if any, is needed at step 308. For example, if the ticket for the feedback has already been closed, the customer service representative may decide to re-open the ticket based on the follow-up correspondence. The procedures described with respect to Figures 1 and 2 above may then be used to provide a follow-up response to the consumer.

[41] Thus far, the invention has been described generally in terms of its primary functional components. Following now is a more detailed description of an exemplary implementation of a user interface for the invention with respect to Figures 4-12. It should be noted that unless otherwise indicated, the design and layout of the various features shown in the figures, including the size, shape, color (or lack thereof), location, and arrangement of the various fields, checkboxes, text boxes, drop-down menus, graphics, and other information, are provided for illustrative purposes only, and the invention is not to be limited to any particular combination of the above.

[42] Figure 4 illustrates an exemplary user interface for a consumer feedback form 400 that may be used by the consumer to provide feedback (step 102a in Figure 1). As can be seen, the consumer feedback form 400 includes several personal information fields 402 in which the consumer may enter his personal information, such as his first and last name and his email address. This information is typically required information, but one or more items may be made optional if desired. Also included is a feedback type indicator 404 that allows the consumer to specify the type of feedback, for example, a "question," "complaint," or "comment." A drop-down menu 406 allows the consumer to specify to

what particular section (e.g., advertising, local news, etc.) his correspondence is related. Finally, a text area 408 allows the consumer to enter the text of his feedback. In the example shown, the consumer's feedback is that the website needs more cello stories.

[43] Figure 5 illustrates an exemplary implementation of an automatic confirmation message 500 that may be sent to the consumer upon receipt of a feedback form (step 110 in Figure 1). The confirmation message 500 includes a copy 502 of the feedback provided by the consumer, as well as a short confirmation 504 that the feedback has been received. Also included in the confirmation message 500 is the tracking number 508 assigned to the ticket, typically provided in the subject line. Preferably, the confirmation message 500 is automatically generated using the auto-reply feature of commercially available email clients such as Microsoft Outlook.

[44] Figure 6 illustrates an exemplary user interface for an open tickets form 600 according to embodiments of the invention. The open tickets form 600 includes a hyperlink list 602, by site, of all tickets from websites with open tickets that have been assigned to a particular customer service representative. Thus, when the customer service representative logs into the electronic content management system, he will be able to see the tickets that have been assigned to him. In the example shown, there are five sites with open tickets for a total of 24 open tickets.

[45] Selecting (e.g., by clicking) one of the sites listed takes the customer service representative to an exemplary open cases form 700, shown in Figure 7. The open cases form 700 provides a hyperlink list 702, by section or department, of the tickets that are open for that site. In the example shown, the site includes four open tickets. Note that one of the tickets, the one for the "News Content" section, has two consumer feedback items.

[46] Figures 8A-8E illustrate an exemplary user interface for a ticket processing form 800 according to embodiments of the invention. The ticket processing form 800 appears when the customer service representative selects (e.g. by clicking) one of the open cases shown in Figure 7. In the example shown, the customer service representative has selected the first case under the "News Content" section. The ticket processing form 800 retrieves and displays all the relevant data 802 associated with that ticket, including the tracking number, the referring site, the email address of the consumer, and the first and

last name of the consumer. Also displayed are the section of the site to which the feedback relates, the type of feedback, and some information about the consumer's system. A text area 804 displays the text of the consumer's feedback.

[47] From this form, the customer service representative may modify the various properties of the ticket as he deems appropriate. For example, the customer service representative may change the feedback type field 806 (see Figure 8B) from a "question" to a "comment." An update button 808 allows the customer service representative to save the changes made to the ticket without sending the correspondence.

[48] The response portion of the ticket processing form 800 can be seen in Figure 8C, where the header and footer fields 810 and 814 are pre-populated with the consumer's name and the customer service representative's name, respectively. A body portion 812 is provided in which a message may be inserted to respond to the issue raised by the consumer. Also present are a blind copy list 816 for blind copying people who may be interested in the response, but from whom no action is required to resolve the issue, as well as an escalation copy list 818 for copying people from whom action may be required. A view escalation button 820 allows the customer service representative to view and edit the escalation copy list without sending the correspondence.

[49] The message that is inserted in the body portion 812 may be generated from scratch by the customer service representative, or it may be copied from one or more predefined responses that have been pre-developed to save time, or both. The predefined responses may be retrieved by selecting one of the sections or categories from the category list 822. Doing so brings up a list 824 of response templates for predefined responses that are associated with the selected category. For example, referring to Figure 8D, selecting the "ALL News Content" category retrieves a list 826 of three templates for predefined responses that relate to that category. Control buttons 826 allow the customer service representative to append, prepend, or replace one or more of the predefined responses in the body portion 812. If the customer service representative desires a different set of predefined responses, a change category button 828 allows the customer service representative to choose a different category and associated set of predefined responses.

[50] In some embodiments, a spellcheck button 830 allows the customer service representative to spellcheck the message inserted in the body portion 812.

[51] Once the customer service representative has completed filling in the body portion 812, he should decide whether the response message adequately resolves the issue raised by the consumer, or if further action is required. If he deems the response message to be adequate, then the customer service representative may decide to close the ticket by making the appropriate selection from the ticket status indicator 832. Otherwise, the customer service representative may make the appropriate selection to keep the ticket open. A save and escalation button 834 allows the customer service representative to save the changes and to escalate the ticket without sending the response to the consumer. Alternatively, the customer service representative may send the response to everyone listed, including the consumer, by selecting a save and submit button 836.

[52] Figure 9 illustrates an exemplary implementation of a consumer correspondence 900 that contains a response message 902 prepared by the customer service representative. The consumer correspondence 900 is sent to the consumer as well as to the people listed in the blind copy and escalation copy lists. The tracking number 904 is included in the subject line in order to identify the particular ticket to which the correspondence 900 is connected.

[53] Figure 10 illustrates an exemplary user interface for a follow-up form 1000 for processing follow-up correspondence received from the consumer. The follow-up form 1000 is essentially similar to the ticket processing form 800 in that it includes much of the same information (e.g., text of consumer correspondence, consumer's email, consumer's personal information, etc.). In the follow-up form 1000, however, the subject line 1002 includes a "RE:" to indicate that this consumer correspondence is in reply to the response message sent previously by the customer service representative. Otherwise, the same steps described above with respect to Figures 8A-8E may be used to respond to the consumer's follow-up correspondence.

[54] Figure 11 illustrates an exemplary user interface for a new ticket form 1100 that may be used to field consumer telephone calls (step 102b in Figure 1). The new ticket form 1100 may be implemented as a webform and includes a plurality of fields 1102 for

obtaining information about the consumer and the referring site. This information is essentially the same information that is obtained when the consumer fills out the consumer feedback form 400 (see Figure 4). Also present is a text area 1104 for inserting a text of the consumer's feedback.

[55] Figure 12A illustrates an exemplary user interface for the ticket search option of the consumer feedback procedure described with respect to Figure 2. As can be seen, a search ticket form 1200 includes a plurality of search fields 1202 that allows a customer service representative's to search for tickets that have been generated. A search fields 1202 included, for example, the ticket number, the first and last name of the consumer, and the email address of the consumer. Also present are fields for searching the referring site, a keyword field, a category or sections field, a date field, and a ticket status field.

[56] Pressing a search button 1204 causes the electronic content management system to conduct a search of its database for tickets matching the specified search criteria. Figure 12B illustrates an exemplary implementation of the search results form 1210. As can be seen, the search results form 1210 includes a hyperlink list of tickets that match the specified search criteria. The customer service representative may then select one of the hyperlinks to view a particular ticket.

[57] While the present invention has been described with reference to one or more particular embodiments, those skilled in the art will recognize that many changes may be made thereto without departing from the spirit and scope of the present invention. Each of these embodiments and obvious variations thereof is contemplated as falling within the spirit and scope of the claimed invention, which is set forth in the following claims.